

केन्द्रीय पेट्रोसायन अभियांत्रिकी एवं
प्रौद्योगिकी संस्थान (सिपेट)

(पूर्व में केन्द्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)

मुख्यालय, पीडीआई सेल्

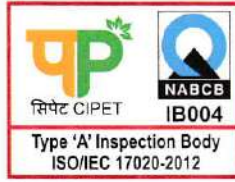
रसायन एवं पेट्रो रसायन विभाग,

रसायन एवं उर्वरक मंत्रालय, भारत सरकार,

टीवीके औद्योगिक इस्टेट, गिंडी, चेन्नई - 600 032

दूरभाष : 044-29813708 (Direct) /044-22254780 (Extn-502)

ई-मेल : pdiho@cipet.gov.in



CENTRAL INSTITUTE OF PETROCHEMICALS
ENGINEERING & TECHNOLOGY (CIPET)

(Formerly Central Institute of Plastics Engineering & Technology)

Head Office, PDI Cell

Department of Chemicals & Petrochemicals,

Ministry of Chemicals & Fertilizers, Govt. of India,

TVK Industrial Estate, Guindy, Chennai - 600 032

Phone : 044-29813708 (Direct) / 044-22254780 (Extn-502)

E-mail : pdiho@cipet.gov.in

Name of Inspecting Official: S.Rajkumar

Code No. : 965

W.O.Centre: CIPET - Kochi

Camp at: M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP

INSPECTION REPORT

1.	Report No : IB00423240501636	Date 11.08.2023
2.	Name of the Indentor/ Consignee with detailed address	The Exective Engineer, KWA,P.H Division,Irinjalakuda,Kerala-680121 ✓
3.	Indenter Order No. & Date and Extension	1.Letter No . D2-2180/2022 Dated: 23.06.2023 2.Work Order No.KWA/PHC/TSR/D5/2893/2022 dt.10.10.2022 3.Letter No. KWA/HO/SP-440/2017/TPI(1)dated02.07.2020 of the Managing Director,KWA,Jalabhavan,TVM.
4.	Details of the Consignee	The Assistant Executive Engineer, PH SubDivision,KWA,Chalakydy,Kerala
5.	Name of the Supplier / Contractor	Sri T Abdusammad,Thammanasery House,Melmuri,Malappuram,Kerala.
6.	Supplier Order No. & Date (if any)	TA/FA/38/2023-24 Dated 15.05.2023
7.	Name & address of the Manufacturer / Inspection site	M/s.Nandi Polymers India Pvt. Ltd., Sy. No. 841/2 , APIIC Industrial Estate, Renigunta Road, Tirupati -517 506, Chittoor (Dist) , A.P
8.	Manufacturer /Supplier Inspection Call Letter No.&Date	NIPIPL 01 Date: 30.07.2023
9.	PDI Cell Assignment No. & Date	CIPET/HO/2023243433 dated 03.08.2023
10.	Date of inspection	Initiated on: 09.08.2023 Completed on: 11.08.2023
11.	Any other information	JJM-2021-22 Thrikkur Grama Panchayath(Phase-2) Providing FHTCs to rural households by Augmentation of existng scheme. Manufacturer BIS License No. CML-6600053107

DETAILS OF THE STORES:

Sl. No	Description of Items	Qty. as per Order (in Meters)	Qty. Inspected earlier Cumulative (in Meters)	Qty. Offered for Inspection (in Meters)	Qty. Accepted for Inspection (in Meters)	Qty. Rejected (in Meters)	Qty. Balance (in Meters)
HDPE Pipes as per IS 4984:2016 with IS Certification Marks:							
01	PE100 PN8 DN 110 MM SDR 17	9889 Mtrs	6600Mtrs	3289 Mtrs (200 Mtrs x16coils), (89 Mtrs x01coil),	3289 Mtrs (200 Mtrs x16coils), (89 Mtrs x01coil),	NIL	NIL
02	PE100 PN10 DN 110 MM SDR 13.6	7402 Mtrs.	NIL	7402 Mtrs (200 Mtrs x36coils) (202 Mtrs x1coils)	7402 Mtrs (200 Mtrs x36coils) (202 Mtrs x1coils)	NIL	NIL
03	PE100 PN10 DN 125 MM SDR 13.6	1077 Mtrs	NIL	1077 Mtrs (12Mtrs x89no's) (09Mtrs x01no's)	1077 Mtrs (12Mtrs x89no's) (09Mtrs x01no's)	NIL	NIL
04	PE100 PN08 DN 160 MM SDR 17	1352 Mtrs	NIL	1352 Mtrs (12Mtrs x112no's), (08Mtrs x01no),	1352Mtrs (12Mtrs x112no's), (08Mtrs x01no),	NIL	NIL
05	PE100 PN08 DN 180 MM SDR 17	325 Mtrs	NIL	325 Mtrs (12Mtrs x27no's), (01Mtrs x01no),	325Mtrs (12Mtrs x27no's), (01Mtrs x01no)	NIL	NIL



CIPET/PDI / 2023-2024
ARSTPS / 965 /001

Remarks: All accepted items are stamped thus-

1. Certified that the items as detailed above have been inspected and accepted. The accepted items may be dispatched to the consignee. The Inspection Document Nos Ref.No. IB00423240501636/ 1,2,3,4,5 dated 11.08.2023 are enclosed.

2. This inspection report is valid for 30 days and any Dispute/discrepancies/claims may be brought to the notice of the undersigned within 30 days from the date of issue of this report.

AUTHORIZED SIGNATORY
(S.Rajkumar /965)

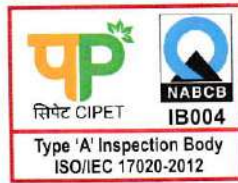
CC: 1. The Assistant Executive Engineer, PH SubDivision,KWA,Chalakydy ,Kerala

2. M/s.Nandi Polymers India Pvt Ltd, Sy. No. 841/2, APIIC Industrial Estate, Renigunta Road, Tirupati - 517508 - 24

3. Sri T Abdusammad,Thammanasery House,Melmuri,Malappuram,Kerala

4. CIPET: Kochi, Kerala.

पेट्रोसायन अभियांत्रिकी एवं
 आणविकी संस्थान (सिपेट)
 पूर्व में केन्द्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)
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Name of Inspecting Official: S.Rajkumar
 Code No. : 965

W.O.Centre: CIPET : IPT-KOCHI
 Camp at: M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP

INSPECTION DOCUMENTS

Inspection Document NO.: IB00423240501636 / 1

Dated: 11.08.2023

Issued to : M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP.

Manufacturer / Supplier Inspection Call Letter No. & Date: NPIPL 01 Date:30.07.2023

Test report as per IS 4984:2016 (Latest Amendment)

PART - A: PARTICULARS OF STORES

- a) Description of the items : HDPE Pipe
- b) Grade/Variety/Type/Size/Class etc. : PE100 PN8 DN 110 MM SDR 17
- c) Declared Value, if any : Nil
- d) Quantity : 3289 Mtrs (200 Mtrs x16coils)(89mtrsx01coil.)
- e) Batch Numbers : 2023060400400C
- f) Item omitted from the original scope of work,if any& any Other Information : Not applicable &Nil

PART - B: SUPPLEMENTARY INFORMATION : Nil.

- a) Reference to sampling procedure : IS 4984:2016 (Latest Amendment)

PART C: INSPECTION RESULTS of witnessed Tests & Review of Documents:

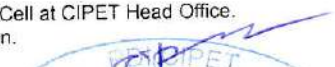
Results of Witnessed Tests :						
Sl.No.	Clause No.	Tests/Witnessed	Unit	Specified Requirements	Results Obtained	
1	6.2	Colour of pipe		Black Colour With Blue Strip	Confirm	
2	6.2.1	Dimension of Blue Strip:				
		No. of Strips	Nos.	3	3	
			Width & Depth	mm	Min.: 3.00 & Max.: 0.20	4.09 & 0.16
	7.4.1.1Table -3	Outside Diameter	mm	Min.: 110.00, Max.: 110.70	110.05 , 110.50	
	7.4.1.1Table- 4	Wall Thickness	mm	Min.: 6.5, Max.: 7.30	6.71 , 7.16	
	7.4.1.2	Ovality	mm	Max.: 2.2	1.67	
	7.2	Length of the Pipe	Mtr.	Min.: 200.00	200.02	
	7.1	Visual Appearance	--	The Internal & External surface of pipe shall be smooth, clean free from grooving & other defects. Ends shall be cleanly cut and shall be square with the axis of the pipe.	Satisfactory	
		Out of Squareness	mm	Max. : 3.00	1.21	
	3	8.1	Performance Requirement : Hydrostatics characteristics- (IPCR TEST) Acceptance Test: At 80°C @ 5.7 MPa. Induced Stress for 48 Hours		The pipe shall not show any sign of localized Swelling, Leakage or Weeping and shall not burst during the test duration.	Confirm
8.2		Reversion test	%	Longitudinal Reversion Max. 3%	0.60	
8.3		Carbon Black Content	%	2.00 to 3.00	2.48	
		Carbon Black Dispersion	---	Satisfactory	Confirm	
8.4		Melt Flow Rate	gm/10Min	0.20 to 1.10	0.264	
8.5		Oxidation Induction Time	Min	≥20	Confirm	
8.7		Density	Kg/ m ³	940.00 to 960.00	950.20 – 952.18	
8.9		Elongation at Break	%	≥350	495	
8.9		Yield strength	Mpa	15	19.2	
4	10.1.1	Marking on each pipe	--	Marking shall show-Manufacturer Name/Trade Mark, Material Designation, Pressure Rating, SDR . Outside Diameter, Batch/Lot Number.	Marking found as per the requirement.	
		Lot number / Batch number	--		2023060400400C	
	10.2.1	BIS Certification Marking	--	Marking with CM/L No.:	6800053107	

Review of Documents (if any):

Sl. No.	Clause No.	Test Parameters / Documents	Certificate / Report No. & Date	Certificate / Report Issued by	Review / Remarks
1	8.4, 8.5, 8.7	Melt Flow Rate, Oxidation Induction Time, Density (Raw material Parameters)	OpaL/SS Plast/367 dated 22.06.2023 & SS Plast/252 Dt 27.05.2023	W/s.ONGC PetroChemicals Ltd – Dharuch, Gujarat	Reviewed and satisfactory
2	8.1.1	Internal Pressure Creep Rupture Test of pipe at 27°C for 100 Hrs.	Test Report No: 002217 dated 17.08.2022	CIPET- Vijayawada	
3	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 100 Hrs.			
4	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 165 Hrs.			
5	8.1.2	Internal Pressure Creep Rupture Test of pipe joints@80°C for100Hrs			
6	8.6	Overall Migration			
7	8.8	Tensile Strength for Butt-Fusion			
8	8.10	Slow Crack Growth Rate Test			

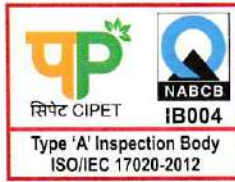
6PART - D: REMARKS

1. This Inspection document shall not be reproduced except in full without the written approval of the PDI Cell at CIPET Head Office.
2. These witness result stated above relate Exclusive to the work order of the object(s) or the lot inspection.
- 3.Lab Environmental Condition during the witness orTests: Temperature 27± 2 °C&R.H. 65±5%.
4. Calibration Status of equipments/Instruments are verified.


 (S.Rajkumar / 965)
 - 965
 2023 - 21

पेट्रोसायन अभियांत्रिकी एवं
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Name of Inspecting Official: S.Rajkumar
Code No. : 965

W.O.Centre: CIPET : IPT-KOCHI

Camp at: M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP

INSPECTION DOCUMENTS

Dated: 11.08.2023

Inspection Document NO.: IB00423240501636 / 2

Issued to : M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP.

Manufacturer / Supplier Inspection Call Letter No. & Date: NPIPL 01 Date:30.07.2023

Test report as per IS 4984:2016 (Latest Amendment)

PART - A: PARTICULARS OF STORES

- a) Description of the items : HDPE Pipe
b) Grade/Variety/Type/Size/Class etc. : PE100 PN10 DN 110 MM SDR 13.6
c) Declared Value, if any : Nil
d) Quantity : 7402 Mtrs (200 Mtrsx36coils)(202 Mtrsx1 coils)
e) Batch Numbers : 2023060400400B
f) Item omitted from the original scope of work,if any& any Other Information : Not applicable &Nil

PART - B: SUPPLEMENTARY INFORMATION : Nil.

- b) Reference to sampling procedure : IS 4984:2016 (Latest Amendment)

PART C: INSPECTION RESULTS of witnessed Tests & Review of Documents:

Results of Witnessed Tests :

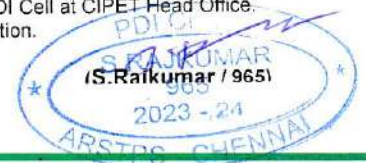
Sl.No.	ClauseNo.	Tests/Witnessed	Unit	Specified Requirements	Results Obtained
1	6.2	Colour of pipe		Black Colour With Blue Strip	Confirm
2	6.2.1	Dimension of Blue Strip:			
		No. of Strips	Nos.	3	3
		Width & Depth	mm	Min.: 3.00 & Max.: 0.20	4.09 & 0.16
	7.4.1.1Table -3	Outside Diameter	mm	Min.: 110.00, Max.: 110.70	110.05 , 110.50
	7.4.1.1Table- 4	Wall Thickness	mm	Min.: 8.1, Max.: 9.10	8.29 , 8.89
	7.4.1.2	Ovality	mm	Max.: 2.2	1.67
	7.2	Length of the Pipe	Mtr.	Min.: 200.00	200.02
7.1	Visual Appearance	--	The Internal & External surface of pipe shall be smooth, clean free from grooving & other defects. Ends shall be cleanly cut and shall be square with the axis of the pipe.	Satisfactory	
	Out of Squareness	mm	Max. : 3.00	1.16	
3	8.1	Performance Requirement.		The pipe shall not show any sign of localized Swelling, Leakage or Weeping and shall not burst during the test duration.	Confirm
	8.1.1 Table -5	Hydrostatics characteristics- (IPCR TEST) Acceptance Test: At 80°C @ 5.7 MPa. Induced Stress for 48 Hours			
	8.2	Reversion test	%	Longitudinal Reversion Max. 3%	0.50
	8.3	Carbon Black Content	%	2.00 to 3.00	2.54
		Carbon Black Dispersion	---	Satisfactory	Confirm
	8.4	Melt Flow Rate	gm/10Min	0.20 to 1.10	0.30
	8.5	Oxidation Induction Time	Min	≥20	Confirm
	8.7	Density	Kg/ m ³	940.00 to 960.00	957.9 – 958.9
	8.9	Elongation at Break	%	≥350	485
8.9	Yield strength	Mpa	15	19.87	
4	10.1.1	Marking on each pipe	--	Marking shall show-Manufacturer Name/Trade Mark, Material Designation, Pressure Rating, SDR , Outside Diameter, Batch/Lot Number.	Marking found as per the requirement.
		Lot number / Batch number	--		2023060400400B
	10.2.1	BIS Certification Marking	--	Marking with CM/L No.:	6600053107

Review of Documents (if any):

Sl. No.	Clause No.	Test Parameters / Documents	Certificate / Report No. & Date	Certificate / Report Issued by	Review / Remarks
1	8.4,8.5, 8.7	Melt Flow Rate, Oxidation Induction Time, Density (Raw material Parameters)	Opal/SS Plast/367 dated 22.06.2023 & SS Plast/252 Dt 27.05.2023	M/s.ONGC PetroChemicals Ltd – Dharuch, Gujarat	Reviewed and satisfactory
2	8.1.1	Internal Pressure Creep Rupture Test of pipe at 27°C for 100 Hrs.	Test Report No: 002217 dated 17.08.2022	CIPET- Vijayawada	
3	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 100 Hrs.			
4	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 165 Hrs.			
5	8.1.2	Internal Pressure Creep Rupture Test of pipe joints@80°C for100Hrs			
6	8.6	Overall Migration			
7	8.8	Tensile Strength for Butt-Fusion			
8	8.10	Slow Crack Growth Rate Test			

6PART - D: REMARKS

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- These witness result stated above relate Exclusive to the work order of the object(s) or the lot inspection.
- Lab Environmental Condition during the witness orTests: Temperature 27± 2 °C&R.H. 65±5%.
- Calibration Status of equipments/Instruments are verified



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मुख्यालय, पीडीआई सेल

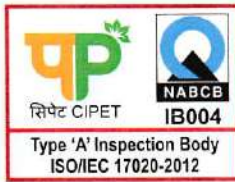
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Code No. : 965

W.O.Centre: CIPET : IPT-KOCHI

Camp at: M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP

INSPECTION DOCUMENTS

Dated: 11.08.2023

Inspection Document NO.: IB00423240501636 /3

Issued to : M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP.

Manufacturer / Supplier Inspection Call Letter No. & Date: NPIPL 01 Date:30.07.2023

Test report as per IS 4984:2016 (Latest Amendment)

PART - A: PARTICULARS OF STORES

- a) Description of the items : HDPE Pipe
b) Grade/Variety/Type/Size/Class etc. : PE100 PN10 DN125 MM SDR 13.6
c) Declared Value, if any : Nil
d) Quantity : 1077 Mtrs(12Mtrsx89no's),(09mtrsx01no.)
e) Batch Numbers : 2023062600300C
f) Item omitted from the original scope of work,if any& any Other Information : Not applicable &Nil

PART - B: SUPPLEMENTARY INFORMATION : Nil.

- c) Reference to sampling procedure : IS 4984:2016 (Latest Amendment)

PART C: INSPECTION RESULTS of witnessed Tests & Review of Documents:

Results of Witnessed Tests :					
Sl.No.	ClauseNo.	Tests/Witnessed	Unit	Specified Requirements	Results Obtained
1	6.2	Colour of pipe		Black Colour With Blue Strip	Confirm
2	6.2.1	Dimension of Blue Strip:			
		No. of Strips	Nos.	3	3
		Width & Depth	mm	Min.: 3.00 & Max.: 0.20	4.09 & 0.16
	7.4.1.1Table -3	Outside Diameter	mm	Min.: 125.00, Max.: 125.80	125.04 , 125.55
	7.4.1.1Table- 4	Wall Thickness	mm	Min.: 9.20, Max.: 10.30	9.42 , 9.97
	7.4.1.2	Ovality	mm	Max.: 2.5	1.67
	7.2	Length of the Pipe	Mtr.	Min.: 12.00	12.01
7.1	Visual Appearance		--	The Internal & External surface of pipe shall be smooth, clean free from grooving & other defects. Ends shall be cleanly cut and shall be square with the axis of the pipe.	Satisfactory
		Out of Squareness	mm	Max. : 3.00	1.16
3	8.1	Performance Requirement : Hydrostatics characteristics- (IPCR TEST) Acceptance Test: At 80°C @ 5.7 MPa. Induced Stress for 48 Hours		The pipe shall not show any sign of localized Swelling, Leakage or Weeping and shall not burst during the test duration.	Confirm
	8.2	Reversion test	%	Longitudinal Reversion Max. 3%	0.8
	8.3	Carbon Black Content	%	2.00 to 3.00	2.27
		Carbon Black Dispersion	---	Satisfactory	Confirm
	8.4	Melt Flow Rate	gm/10Min	0.20 to 1.10	0.275
	8.5	Oxidation Induction Time	Min	≥20	Confirm
	8.7	Density	Kg/ m ³	940.00 to 960.00	949.73- 951.14
	8.9	Elongation at Break	%	≥350	450
8.9	Yield strength	Mpa	15	19.38	
4	10.1.1	Marking on each pipe	--	Marking shall show-Manufacturer Name/Trade Mark, Material Designation, Pressure Rating, SDR , Outside Diameter, Batch/Lot Number.	Marking found as per the requirement.
		Lot number / Batch number	--		2023062600300C
10.2.1	BIS Certification Marking	--	Marking with CML No.:	6600053107	

Review of Documents (if any):

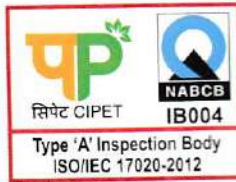
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1	8.4,8.5, 8.7	Melt Flow Rate, Oxidation Induction Time, Density (Raw material Parameters)	Opal/SS Plast/367 dated 22.06.2023 & SS Plast/252 Dt 27.05.2023	M/s.ONGC PetroChemicals Ltd - Dharuch, Gujarat	Reviewed and satisfactory
2	8.1.1	Internal Pressure Creep Rupture Test of pipe at 27°C for 100 Hrs.	Test Report No: 002217 dated 17.08.2022	CIPET- Vijayawada	
3	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 100 Hrs.			
4	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 165 Hrs.			
5	8.1.2	Internal Pressure Creep Rupture Test of pipe joints@80°C for100Hrs			
6	8.6	Overall Migration			
7	8.8	Tensile Strength for Butt-Fusion			
8	8.10	Slow Crack Growth Rate Test			

6PART - D: REMARKS

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- Lab Environmental Condition during the witness or Tests: Temperature 27± 2 °C&R.H. 65±5%.
- Calibration Status of equipments/Instruments are verified.



पेट्रोसायन अभियांत्रिकी एवं
 प्रौद्योगिकी संस्थान (सिपेट)
 पूर्व में केन्द्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)
 मुख्यालय, पीडीआई सेल
 रसायन एवं पेट्रो रसायन विभाग,
 रसायन एवं उर्वरक मंत्रालय, भारत सरकार,
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 दूरभाष : 044-29813708 (Direct) /044-22254780 (Extn-502)
 ई-मेल : pdiho@cipet.gov.in



**CENTRAL INSTITUTE OF PETROCHEMICALS
 ENGINEERING & TECHNOLOGY (CIPET)**
 (Formerly Central Institute of Plastics Engineering & Technology)
Head Office, PDI Cell
 Department of Chemicals & Petrochemicals,
 Ministry of Chemicals & Fertilizers, Govt. of India,
 TVK Industrial Estate, Guindy, Chennai - 600 032
 Phone : 044-29813708 (Direct) / 044-22254780 (Extn-502)
 E-mail : pdiho@cipet.gov.in

Name of Inspecting Official: S.Rajkumar
 Code No. : 965
 W.O.Centre: CIPET : IPT-KOCHI
 Camp at: M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP

INSPECTION DOCUMENTS

Dated: 11.08.2023

Inspection Document No.: IB00423240501636 /4
 Issued to : M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP.
 Manufacturer / Supplier Inspection Call Letter No.& Date: NPIPL 01 Date:30.07.2023
 Test report as per IS 4984:2016 (Latest Amendment)

PART - A: PARTICULARS OF STORES

- g) Description of the items : HDPE Pipe
 h) Grade/Variety/Type/Size/Class etc. : PE100 PN8 DN160 MM SDR 17
 i) Declared Value, if any : Nil
 j) Quantity : 1352 Mtrs(12Mtrsx112no's), (08Mtrsx01no)
 k) Batch Numbers : 2023062600400B
 l) Item omitted from the original scope of work,if any& any Other Information : Not applicable &Nil

PART - B: SUPPLEMENTARY INFORMATION : Nil.

d) Reference to sampling procedure : IS 4984:2016 (Latest Amendment)

PART C: INSPECTION RESULTS of witnessed Tests & Review of Documents:

Results of Witnessed Tests :					
Sl.No.	ClauseNo.	Tests/Witnessed	Unit	Specified Requirements	Results Obtained
1	6.2	Colour of pipe		Black Colour With Blue Strip	Confirm
2	6.2.1	Dimension of Blue Strip:			
		No. of Strips	Nos.	3	3
		Width & Depth	mm	Min.: 3.00 & Max.: 0.20	4.09 & 0.16
	7.4.1.1 Table -3	Outside Diameter	mm	Min.: 160.00, Max.: 160.10	160.10 , 160.70
	7.4.1.1 Table- 4	Wall Thickness	mm	Min.: 9.50, Max.: 10.60	9.68 , 10.19
	7.4.1.2	Ovality	mm	Max.: 3.2	1.67
	7.2	Length of the Pipe	Mtr.	Min.: 12.00	12.01
	7.1	Visual Appearance	--	The Internal & External surface of pipe shall be smooth, clean free from grooving & other defects. Ends shall be cleanly cut and shall be square with the axis of the pipe.	Satisfactory
		Out of Squareness	mm	Max. : 4.00	2.06
		Performance Requirement :			
3	8.1	Hydrostatics characteristics- (IPCR TEST) Acceptance Test: At 80°C @ 5.7 MPa. Induced Stress for 48 Hours		The pipe shall not show any sign of localized Swelling, Leakage or Weeping and shall not burst during the test duration.	Confirm
	8.2	Reversion test	%	Longitudinal Reversion Max. 3%	1.0
	8.3	Carbon Black Content	%	2.00 to 3.00	2.47
		Carbon Black Dispersion	---	Satisfactory	Confirm
	8.4	Melt Flow Rate	gm/10Min	0.20 to 1.10	0.280
	8.5	Oxidation Induction Time	Min	≥20	Confirm
	8.7	Density	Kg/ m ³	940.00 to 960.00	954.61- 958.00
	8.9	Elongation at Break	%	≥350	470
	8.9	Yield strength	Mpa	15	19.01
4	10.1.1	Marking on each pipe	--	Marking shall show-Manufacturer Name/Trade Mark, Material Designation, Pressure Rating, SDR , Outside Diameter, Batch/Lot Number.	Marking found as per the requirement.
		Lot number / Batch number	--		2023062600400B
	10.2.1	BIS Certification Marking	--	Marking with CM/L No.:	6600053107

Review of Documents (if any):

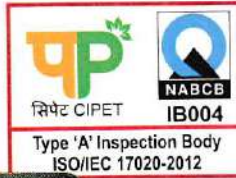
Sl. No.	Clause No.	Test Parameters / Documents	Certificate / Report No. & Date	Certificate / Report Issued by	Review / Remarks
1	8.4.8.5, 8.7	Melt Flow Rate, Oxidation Induction Time, Density (Raw material Parameters)	Opal/SS Plast/367 dated 22.06.2023 & SS Plast/252 Dt 27.05.2023	M/s.ONGC PetroChemicals Ltd - Dharuch, Gujarat	Reviewed and satisfactory CIPET- Vijayawada
2	8.1.1	Internal Pressure Creep Rupture Test of pipe at 27°C for 100 Hrs.	Test Report No: 002217 dated 17.08.2022	CIPET- Vijayawada	
3	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 100 Hrs.			
4	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 165 Hrs.			
5	8.1.2	Internal Pressure Creep Rupture Test of pipe joints@80°C for100Hrs			
6	8.6	Overall Migration			
7	8.8	Tensile Strength for Butt-Fusion			
8	8.10	Slow Crack Growth Rate Test			

6PART - D: REMARKS

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- Lab Environmental Condition during the witness or Tests: Temperature 27± 2 °C&R.H. 65±5%.
- Calibration Status of equipments/Instruments are verified.

(S.Rajkumar / 965)

पेट्रोसायन अभियांत्रिकी एवं
 रासायनिकी संस्थान (सिपेट)
 पूर्व में केन्द्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)
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Name of Inspecting Official: **S.Rajkumar** W.O. Centre: **CIPET - IPT-KOCHI**
 Code No. : **965** Camp at: **M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP**

INSPECTION DOCUMENTS

Inspection Document No.: **IB00423240501636 /5** Dated: **11.08.2023**

Issued to : **M/s.Nandi Polymers India Pvt. Ltd., Tirupati , AP.**
 Manufacturer / Supplier Inspection Call Letter No.& Date: **NPIPL 01 Date:30.07.2023**
 Test report as per **IS 4984:2016 (Latest Amendment)**

PART - A: PARTICULARS OF STORES

- m) Description of the items : **HDPE Pipe**
- n) Grade/Variety/Type/Size/Class etc. : **PE100 PN8 DN180 MM SDR 17**
- o) Declared Value, if any : **Nil**
- p) Quantity : **325 Mtrs(12Mtrsx27no's), (01Mtrsx01no)**
- q) Batch Numbers : **2023062600400A**
- r) Item omitted from the original scope of work,if any& any Other Information : **Not applicable &Nil**

PART - B: SUPPLEMENTARY INFORMATION : **Nil.**

e) Reference to sampling procedure : **IS 4984:2016 (Latest Amendment)**

PART C: INSPECTION RESULTS of witnessed Tests & Review of Documents:

Results of Witnessed Tests :					
Sl.No.	ClauseNo.	Tests/Witnessed	Unit	Specified Requirements	Results Obtained
1	6.2	Colour of pipe		Black Colour With Blue Strip	Confirm
2	6.2.1	Dimension of Blue Strip:			
		No. of Strips	Nos.	3	3
		Width & Depth	mm	Min.: 3.00 & Max.: 0.20	5.09 & 0.16
	7.4.1.1Table -3	Outside Diameter	mm	Min.: 180.00, Max.: 180.10	180.10 , 180.70
	7.4.1.1Table- 4	Wall Thickness	mm	Min.: 10.60, Max.: 11.80	10.76 , 11.26
	7.4.1.2	Ovality	mm	Max.: 3.6	1.67
	7.2	Length of the Pipe	Mtr.	Min.: 12.00	12.01
7.1	Visual Appearance	--	The Internal & External surface of pipe shall be smooth, clean free from grooving & other defects. Ends shall be cleanly cut and shall be square with the axis of the pipe.	Satisfactory	
	Out of Squareness	mm	Max. : 4.00	2.06	
3	8.1	Performance Requirement : Hydrostatics characteristics- (IPCR TEST) Acceptance Test: At 80°C @ 5.7 MPa. Induced Stress for 48 Hours		The pipe shall not show any sign of localized Swelling, Leakage or Weeping and shall not burst during the test duration.	Confirm
	8.2	Reversion test	%	Longitudinal Reversion Max. 3%	0.60
	8.3	Carbon Black Content	%	2.00 to 3.00	2.83
	8.3	Carbon Black Dispersion	---	Satisfactory	Confirm
	8.4	Melt Flow Rate	gm/10Min	0.20 to 1.10	0.270
	8.5	Oxidation Induction Time	Min	≥20	Confirm
	8.7	Density	Kg/ m ³	940.00 to 960.00	949.44- 952.77
	8.9	Elongation at Break	%	≥350	480
4	10.1.1	Marking on each pipe	--	Marking shall show-Manufacturer Name/Trade Mark, Material Designation, Pressure Rating, SDR , Outside Diameter, Batch/Lot Number.	Marking found as per the requirement.
		Lot number / Batch number	--		2023062600400A
	10.2.1	BIS Certification Marking	--	Marking with CM/L No.:	6600053107

Review of Documents (if any):

Sl. No.	Clause No.	Test Parameters / Documents	Certificate / Report No. & Date	Certificate / Report Issued by	Review / Remarks
1	8.4,8.5, 8.7	Melt Flow Rate, Oxidation Induction Time, Density (Raw material Parameters)	Opa/SS Plast/367 dated 22.06.2023 & SS Plast/252 Dt 27.05.2023	M/s.ONGC PetroChemicals Ltd - Dharuch, Gujarat	Reviewed and satisfactory
2	8.1.1	Internal Pressure Creep Rupture Test of pipe at 27°C for 100 Hrs.	Test Report No: 002217 dated 17.08.2022	CIPET- Vijayawada	
3	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 100 Hrs.			
4	8.1.1	Internal Pressure Creep Rupture Test of pipe at 80°C for 165 Hrs.			
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